

ABSTRACT OF THE DISCLOSURE

[1094] Run time sampling techniques have been developed whereby representative object lifetime statistics may be obtained and employed to adaptively affect tenuring decisions, memory object promotion and/or storage location selection. In some realizations, object allocation functionality is dynamically varied to achieve desired behavior on an object category-by-category basis. In some realizations, phase behavior affects sampled lifetimes e.g., for objects allocated at different phases of program execution, and the dynamic facilities described herein provide phase-specific adaptation tenuring decisions, memory object promotion and/or storage location selection. In some realizations, reversal of such decisions is provided.